

I. REMARKS

Preliminary Remarks

Claims 1-9 and 11-17 are at issue, of which claims 1 and 9 are independent. No claims are added, amended, withdrawn, or canceled. This response is timely filed within the shortened statutory period for reply. Therefore, the applicants believe that no fee is due.

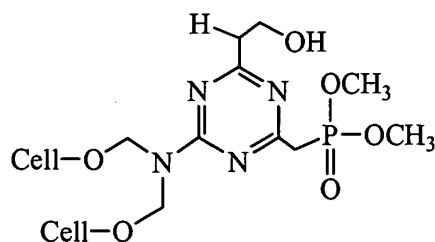
Patentability Remarks

Rejections under 35 U.S.C. §103(a) –

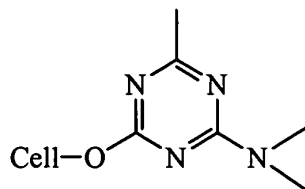
Claims 1-9 and 11-17 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Haller *et al.* (U.S. Pat. No. 1,886,480) in view of Sello *et al.* (*Textilveredlung* 5(5), 391 – 399, 1970). The applicants respectfully traverse.

Mere cyanuric chloride treated cellulose does not have inherent flame retardant properties as alleged by the examiner. As noted in the present application, the successful use of triazine derivatives in the flameproof finishing of cellulosic material is the achievement of a high degree of substitution (see, for example, page 2, lines 27-29). The applicants reiterate that there is no motivation in Haller *et al.* to flameproof cellulose by reaction with cyanuric chloride. Indeed, Haller *et al.* react cellulose with cyanuric chloride to create an intermediate for dyeing cellulose. Therefore, one of ordinary skill in the art **would not** conduct routine experimentation on the compounds of Haller *et al.* to obtain amino-s-triazine treated cellulose with flameproofing characteristics as claimed in claims 1-8 of the present invention. There is also no teaching or suggestion in Haller *et al.* of a method for the flameproofing of cellulose (as claimed in claims 9 and 11-17), nor can there be, as this property was not described or even known by Haller *et al.*

Furthermore, the examiner is absolutely incorrect in her blithe assumption that the compounds in Sello *et al.* have the same backbone structure as Haller *et al.* The compounds in Sello *et al.* have the following structure:



In contrast, the compounds in Haller *et al.* have the following general structure:

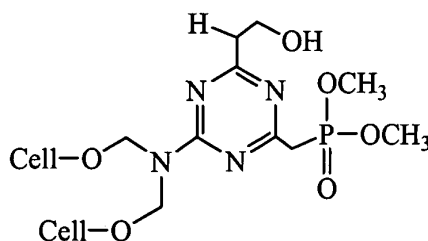


In other words, the cellulose (Cell) is linked to the triazine ring by an $-O-CH_2-N-$ bridge in Sello *et al.* *versus* by an $-O-$ bridge in Haller *et al.* Not only would the combination of Haller *et al.* with Sello *et al.* **not** result in the present invention (it is even doubtful if such a combination is possible), but also one of ordinary skill in the art would not seek to substitute an $-O-CH_2-N-$ linker with an $-O-$ linker. Therefore, claims 1-9 and 11-17 are not unpatentable over Haller *et al.* in view of Sello *et al.* and the applicants respectfully request removal of this rejection.

Claims 1-9 and 11-17 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Scheibli *et al.* (U.S. Pat. No. 6,036,731) in view of Sello *et al.* The applicants respectfully traverse.

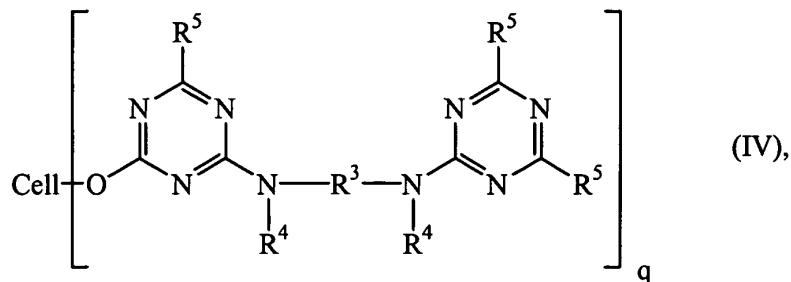
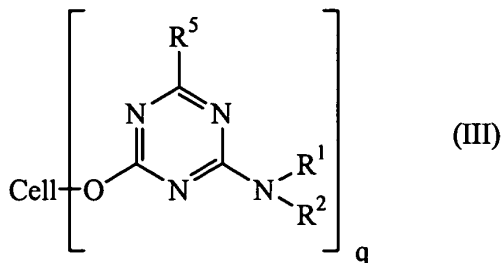
Once again, there is no motivation in Scheibli *et al.* to flameproof cellulose. Scheibli *et al.* describe cross-linking cellulosic fibre materials to impart permanent finishing effects on them (column 1, lines 5-6). Therefore, one of ordinary skill in the art **would not** conduct routine experimentation on the compounds of Scheibli *et al.* to obtain treated cellulose with flameproofing characteristics. Furthermore, Scheibli *et al.* **add** flame retardants to their fibre materials (column 13, lines 60-63), clearly indicating that their cellulosic materials are **not** flameproof. In other words, it is clear that Scheibli *et al.* cannot and do not teach a method for the flameproofing of cellulose, as claimed in claims 9 and 11-17.

Additionally, as noted above, the compounds in Sello *et al.* have the following structure:



i.e., the cellulose unit is linked to the triazine ring by an $-O-CH_2-N-$ linker. In contrast, the claims are directed to amino-s-triazine compounds bound to glucose units of the cellulose via

ether bridges and by the structure of formula III or IV:



One of ordinary skill in the art would not seek to substitute an $-\text{O}-\text{CH}_2-\text{N}-$ linker with an $-\text{O}-$ linker. In other words, the combination of Scheibli *et al.* and Sello *et al.* does not teach or suggest all the claim limitations. Therefore, claims 1-9 and 11-17 are not unpatentable over Scheibli *et al.* in view of Sello *et al.* and the applicants respectfully request removal of this rejection.

The applicants respectfully submit that this application is in condition for allowance and request a timely Notice to that effect. Should questions relating to patentability remain, the examiner is strongly urged to contact the undersigned at the number indicated.

Respectfully submitted,

PILLSBURY WINTHROP LLP

By: 

Thomas A. Cawley, Jr., Ph.D.

Registration No.: 40,944

Direct Telephone No.: 703-905-2144

TAC\GP

P.O. Box - 10500
McLean, VA 22102

General Telephone No.: 703-905-2000
General Facsimile No.: 703-905-2500